



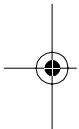
Cat. No. 14-1108A

OWNER'S MANUAL

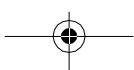
Please read before using this equipment.

CTR-102

**AC•DC Portable
Cassette Tape Recorder**



Radio Shack



FEATURES

Your Radio Shack CTR-102 AC•DC Portable Cassette Tape Recorder is a multi-functional recorder. It is easy-to-use and reliable. You will find it ideal for both personal and business use.

Its features include:

Built-in Condenser Microphone — gives you high sensitivity for recording conferences.

Automatic Level Control (ALC) Circuit — automatically ensures the proper recording level.

Record/Battery Indicator — flickers during recording and lights steadily when the batteries need replacing.

MIC Jack — lets you connect an optional external microphone.

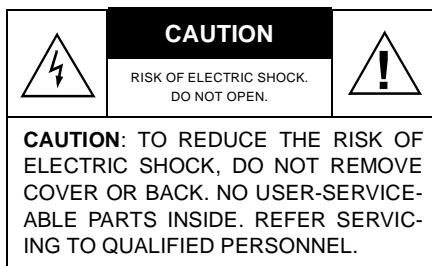
AUX Jack — lets you record from an external sound source.

Supplied Earphone — lets you listen in privacy.

Erase Plug — lets you easily erase cassette tapes.

Three Power Sources — let you power the recorder from four C batteries, standard AC power, or vehicle DC power (with an optional DC adapter).

Warning: To prevent fire or shock hazard, do not expose this recorder to rain or moisture.



This symbol is intended to alert you to the presence of uninsulated dangerous voltage within the recorder's enclosure that might be of sufficient magnitude to constitute a risk of electric shock. Do not open the recorder's case.



This symbol is intended to inform you that important operating and maintenance instructions are included in the literature accompanying this recorder.

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PREPARATION

CONNECTING POWER

You can power the recorder from any of three power sources:

- Internal batteries
- Standard AC power
- Your vehicle's cigarette-lighter socket (with an optional DC adapter)

Note: Connecting an adapter disconnects the internal batteries.

Using Internal Batteries

You can power your recorder with four C batteries (not supplied). For the best performance, we recommend alkaline batteries, such as Radio Shack Cat. No. 23-551/651.

1. Press down on the battery compartment cover's grooves and slide it off in the direction of the arrow.

(illus)

2. Install the batteries as indicated by the polarity symbols (+ and -) marked inside the compartment.

Cautions:

- Use only fresh batteries of the required size and type.
- Never mix fresh and old batteries, or different battery types.

3. Replace the cover.

Cautions:

- Always dispose of old batteries promptly and properly.
- Never leave dead, old, or weak batteries in the recorder. They can leak chemicals and corrode or damage electronic circuits.
- If you do not plan to use batteries in the CTR-102 for a month or more, remove the batteries to protect the CTR-102 from possible battery leakage.

To check the battery's condition, press **PLAY**, **REWIND**, or **FAST-F**. If the **RECORD/BATTERY** indicator lights steadily, the batteries need replacing.

(illus)

Using AC Power

To power the recorder from standard AC power, plug the supplied AC power cord into the **AC POWER 120V** jack on the right side of the recorder. Then plug the other end into a standard AC outlet.

(illus)

Caution: Always plug the AC power cord into the **AC POWER 120V** jack before you plug it into an AC outlet, and always unplug the AC power cord from the AC outlet before you unplug it from the **AC POWER 120V** jack.

Note: The recorder automatically disconnects internal batteries when you connect the AC power cord.

Using Vehicle Battery Power

You can also power the recorder from your vehicle's battery using an auto DC adapter (such as Radio Shack Cat. No. 14-844, not supplied) that connects to your vehicle's cigarette lighter socket.

Cautions:

- The recommended DC adapter supplies 6 volts and delivers at least 300 millamps. Its center tip is set to negative, and its plug correctly fits the recorder's **DC 6V** jack. Using an adapter that does not meet these specifications could seriously damage the recorder or the adapter.
- Always plug the adapter into the recorder before you plug it into the cigarette-lighter socket, and always unplug the adapter from the cigarette-lighter socket before you unplug it from the recorder.

1. Set the DC adapter's voltage switch to 6V.

(illus)

2. Insert the DC adapter's black-tipped barrel plug into the adapter's cord so it reads TIP-NEG.

(illus)

3. Insert the adapter's barrel plug into the recorder's **DC 6V** jack.

(illus)

4. Plug the adapter's larger plug into the vehicle's cigarette-lighter socket.

Note: The recorder automatically disconnects internal batteries when you connect the DC adapter.

USING AN EARPHONE

For private listening, you can use the supplied earphone. Insert the earphone's $\frac{1}{8}$ -inch plug into the **EAR** jack.

(illus)

Note: Connecting the earphone automatically disconnects the built-in speaker.

Listening Safely

To protect your hearing, follow these guidelines when you use an earphone.

- Set the volume to the lowest setting before you begin listening. After you begin listening, adjust the volume to a comfortable level.
- Do not listen at extremely high volume levels. Extended high volume listening can lead to permanent hearing loss.
- Once you set the volume, do not increase it. Over time, your ears adapt to the volume level, so a volume level that does not cause discomfort might still damage your hearing.

Traffic Safety

Do not wear earphones while operating a motor vehicle or riding a bicycle. This can create a traffic hazard and is illegal in some areas.

Even though some earphones are designed to let you hear some outside sounds when listening at normal volume levels, they still present a traffic hazard.

OPERATION

LOADING A CASSETTE

1. Take up any slack in the tape by turning one of the cassette's hubs with a pencil.

(illus)

Caution: If you do not remove excess slack, the tape might get tangled in the record/playback mechanism.

2. Press **STOP/EJECT** to open the cassette compartment door.

(illus)

3. Slide the cassette into the cassette guides, with its open edge toward the buttons, the desired side facing up, and its full reel on the left.

(illus)

4. Close the door.

PLAYING A TAPE

Warning: To protect your hearing, set **VOLUME** to its lowest setting before you begin playing a cassette tape.

(illus)

1. Load a prerecorded cassette tape into the compartment.
2. Press **PLAY**.

(illus)

Notes:

- Press **PAUSE** to temporarily stop playback. Press **PAUSE** again to resume playback.
- Press **FAST-F** or **REWIND** to rapidly wind the tape forward or backward. Press **STOP/EJECT**, then **PLAY** again to resume playback.

3. Adjust **VOLUME** to the desired listening level.

4. Press **STOP** to stop playback before it automatically stops. Press **STOP/EJECT** again to open the cassette compartment and remove the cassette tape.

3. Press **RECORD** to begin recording. Both **PLAY** and **RECORD** lock down.

(illus)

RECORDING

Notes:

- Before you load a cassette tape for recording, be sure its erase-protection tabs are in place (see "Preventing Accidental Erasure").
- The recorder's Automatic Level Control (ALC) circuit automatically adjusts the recording level. **VOLUME** has no effect on recording.

Note: To temporarily stop recording, press **PAUSE**. To resume recording, press **PAUSE** again.

4. Speak into **MIC**.

(illus)

Using the Built-In Microphone

The built-in condenser microphone is a high-sensitivity microphone that easily picks up sounds, near or far. This is handy for recording conferences or lectures.

Follow these steps to record using the built-in microphone.

1. Load a blank cassette tape, or one you want to record over, into the cassette compartment.
2. Place the recorder 2 or 3 feet from the recording source.

5. Press **STOP/EJECT** to stop recording.

Using an External Microphone

You can connect an external microphone with a 1/8-inch plug to the recorder. This is handy for when you want to record only an individual's voice and exclude all other sounds in the surrounding area. Your local Radio Shack store carries a wide variety of external microphones.

Note: Connecting an external microphone automatically disconnects the built-in microphone.

Follow these steps to record using an external microphone.

1. Load a blank cassette tape, or one you want to record over, into the cassette compartment.
2. Insert the external microphone's 1/8-inch plug into the recorder's **MIC** jack.

(illus)

Note: If the external microphone has a separate, smaller plug for remote operation, insert that plug into the **REM** jack. Be sure to turn on the microphone's remote switch for operation.

3. Press **RECORD** to begin recording. Both **PLAY** and **RECORD** lock down.

Note: To temporarily stop recording, press **PAUSE**. To resume recording, press **PAUSE** again.

4. Speak into the external microphone.
5. Press **STOP/EJECT** to stop recording.

Recording from an External Audio Source

You can directly record from an external audio source, such as a radio, tape deck, or CD player, using a suitable patch cord (not supplied) with a 1/8-inch plug.

Note: Before you connect an external audio source to the recorder, be sure the source's and the recorder's volume controls are set to their minimum setting.

Follow these steps to record from an external audio source.

1. Load a blank cassette tape, or one you want to record over, into the cassette compartment.
2. If you connected an external microphone, disconnect it.
3. Connect your external audio source to the recorder by connecting the patch cord's 1/8-inch plug to the recorder's **AUX** jack.

(illus)

4. Start the external audio source and set its volume control to a normal listening level.

Note: During recording, the recorder's speaker is muted. If you want to monitor the recording, use the supplied earphone.

5. Press **RECORD** to begin recording. Both **PLAY** and **RECORD** lock down.

Note: To temporarily stop recording, press **PAUSE**. To resume recording, press **PAUSE** again.

6. Press **STOP/EJECT** to stop recording.

Important: Most material on compact disks and prerecorded tapes is copyrighted. Unauthorized duplication of copyrighted material is a violation of the copyright laws of most countries and such duplication may result in fines and/or imprisonment. Note, however, that in the United States, it is not a violation of U.S. copyright laws for a consumer to use an audio recording device to duplicate musical recordings for noncommercial (personal) use.

TAPE TIPS

Recommended Tapes

Tape quality greatly affects the quality of the recording. We recommend extended-range or low noise Type 1 regular length (60- or 90-minute) normal-bias cassette tapes. We do not recommend long-play cassette tapes such as C-120s because they are thin and easily tangle.

Erasing a Cassette Tape

To record over a cassette tape, simply record as usual. The cassette deck records over the previous recording.

To erase the entire cassette tape, insert the supplied erasing plug into the **MIC** jack and press **RECORD**.

(illus)

Note: Be sure you have not connected anything to the **AUX** jack.

If you need to erase an entire cassette, you might prefer using a bulk tape eraser, available from your local Radio Shack store.

Preventing Accidental Erasure

Cassette tapes have two erase-protection tabs — one for each side. When a tab is in place, you can record on that side.

To protect a recording from being accidentally recorded over or erased, use a screwdriver to remove one or both of the cassette tape's erase-protection tabs. This prevents **RECORD** from being pressed.

(illus)

If you later decide to record on a tape side after you have removed the erase-protection tab for that side, place a piece of strong plastic tape over that side's erase-protection hole. Be sure you cover only the hole originally covered by the erase-protection tab.

(illus)

Caution: Removing the erase-protection tabs does not prevent a bulk eraser from erasing a cassette tape.

Restoring Tape Tension and Sound Quality

After you play a cassette tape several times, the tape might become tightly wound on the reels. This can cause playback sound quality to deteriorate.

To restore the sound quality, fast-forward the tape from the beginning to the end of one side, then completely rewind it. Then loosen the tape reels by gently tapping each side of the cassette's outer shell on a flat surface.

Caution: Be careful not to damage the cassette when tapping it. Do not touch the exposed tape or allow any sharp objects near the cassette.

MAINTENANCE

Your Radio Shack CTR-102 AC•DC Portable Cassette Tape Recorder is an example of superior design and craftsmanship. The following suggestions will help you care for your recorder so you can enjoy it for years.



Keep the recorder dry. If it gets wet, wipe it dry immediately. Liquids might contain minerals that can corrode the electronic circuits.



Handle the recorder gently and carefully. Dropping it can damage circuit boards and cases and can cause the recorder to work improperly.



Use and store the recorder only in normal temperature environments. Temperature extremes can shorten the life of electronic devices and distort or melt plastic parts.



Keep the recorder away from dust and dirt, which can cause premature wear of parts.



Wipe the recorder with a damp cloth occasionally to keep it looking new. Do not use harsh chemicals, cleaning solvents, or strong detergents to clean the recorder.

Modifying or tampering with the recorder's internal components can cause a malfunction and might invalidate your recorder's warranty. If your recorder is not performing as it should, take it to your local Radio Shack store for assistance.

CLEANING THE TAPE-HANDLING PARTS

Dirt, dust, or particles of the tape's coating can accumulate on the tape heads and other parts that the tape touches. This can greatly reduce the cassette player's performance.

To prevent noise and poor high-frequency response, clean the cassette player's tape-handling parts after every 20 hours of use.

Note: Your local Radio Shack store sells a complete line of cassette cleaning supplies.

1. Remove the batteries and disconnect any power source.
2. Open the cassette compartment cover.
3. Press **PLAY** to expose the tape-handling parts.

4. Use a cotton swab dipped in tape head cleaning solution or denatured alcohol to gently clean the capstan, pinch roller, tape guides, and tape head.

(illus)

5. When you finish cleaning, press **STOP** and close the compartment.

SPECIFICATIONS

CASSETTE PLAYER

Track System	2-Track Monaural
Tape Speed	4.75 cm/s
Recording System	AC Bias
Frequency Response (at ± 6 dB)	125 Hz–6.3 kHz
Signal-to-Noise Ratio	40 dB
Wow and Flutter (WRMS)	Less Than 0.35%

GENERAL

Power Requirements	DC 6V
Power Sources	Four C Batteries (Cat. No. 23-551/651) AC Adapter (Cat. No. 273-1662) DC Auto Adapter (Cat. No. 14-844)
Dimensions	9 $\frac{1}{2}$ x 5 $\frac{11}{16}$ x 1 $\frac{13}{16}$ Inches (HWD) (241 x 144 x 46 mm)
Weight (without batteries)	2.1 lbs (950 g)

Specifications are typical; individual units might vary. Specifications are subject to change without notice.

NOTES

RADIO SHACK LIMITED WARRANTY

This product is warranted against defects for 90 days from date of purchase from Radio Shack company-owned stores and authorized Radio Shack franchisees and dealers. Within this period, we will repair it without charge for parts and labor. Simply **bring your Radio Shack sales slip** as proof of purchase date to any Radio Shack store. Warranty does not cover transportation costs. Nor does it cover a product subjected to misuse or accidental damage.

EXCEPT AS PROVIDED HEREIN, RADIO SHACK MAKES NO EXPRESS WARRANTIES AND ANY IMPLIED WARRANTIES ARE LIMITED IN DURATION TO THE DURATION OF THE WRITTEN LIMITED WARRANTIES CONTAINED HEREIN. Some states do not permit limitation or exclusion of implied warranties; therefore, the aforesaid limitation(s) or exclusion(s) may not apply to the purchaser.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

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